

Figure 1

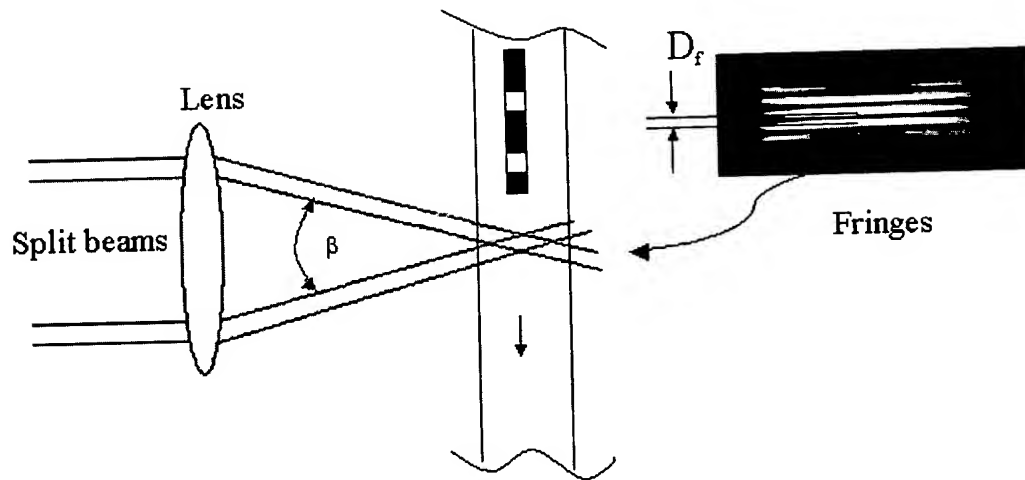


Figure 2

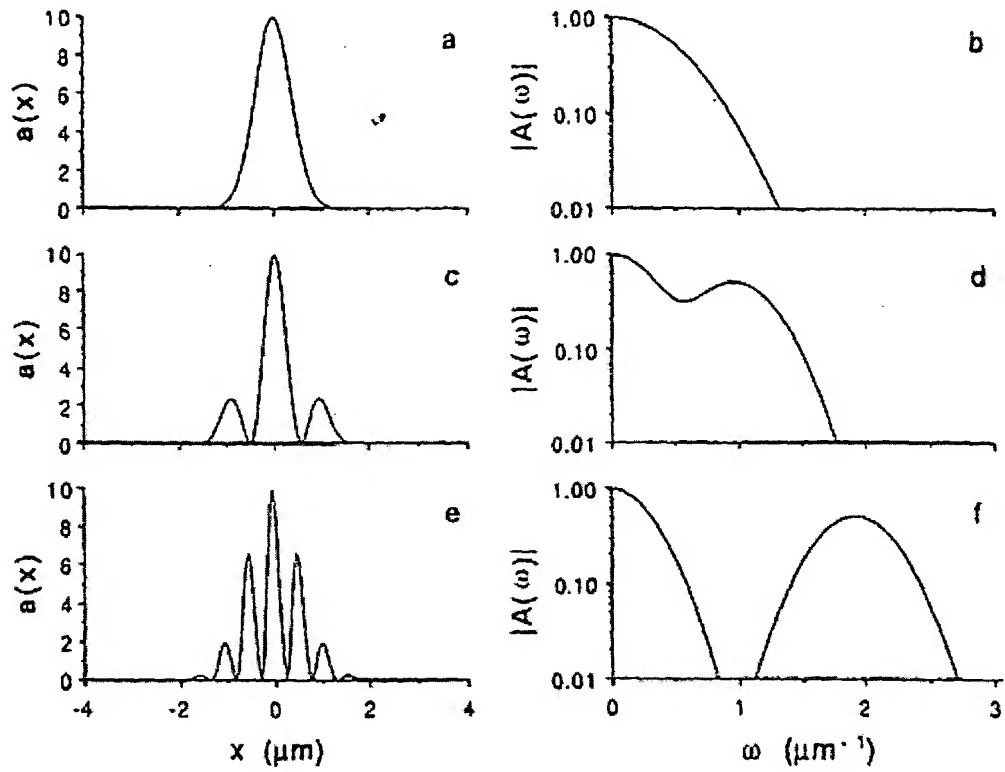


Figure 3

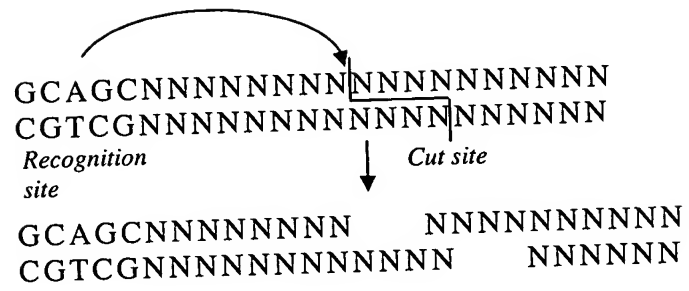


Figure 4

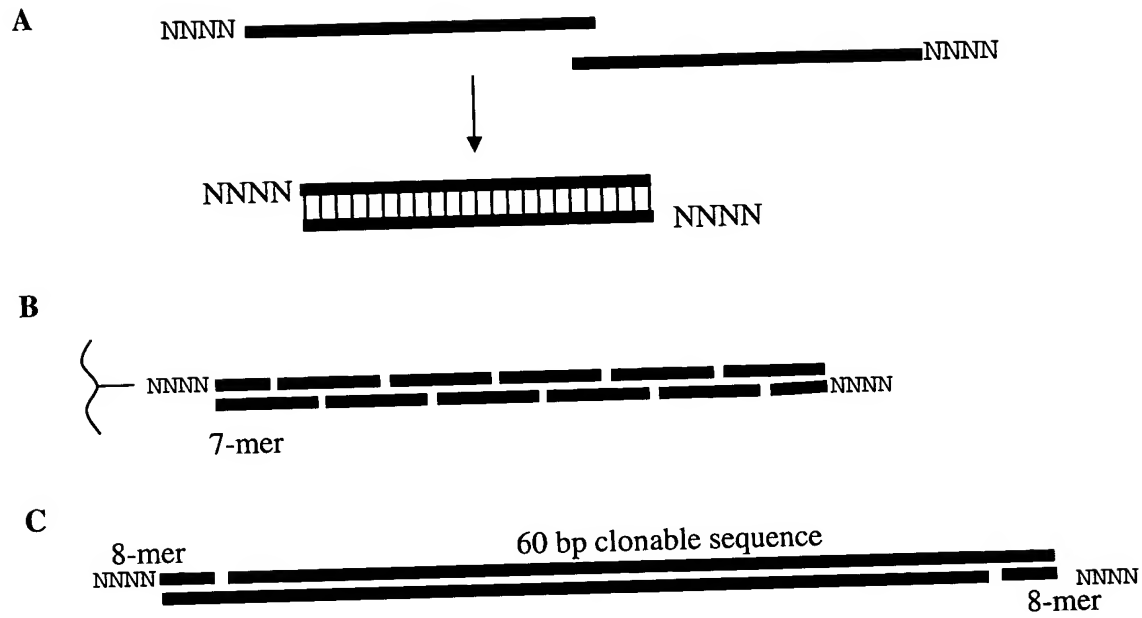


Figure 5

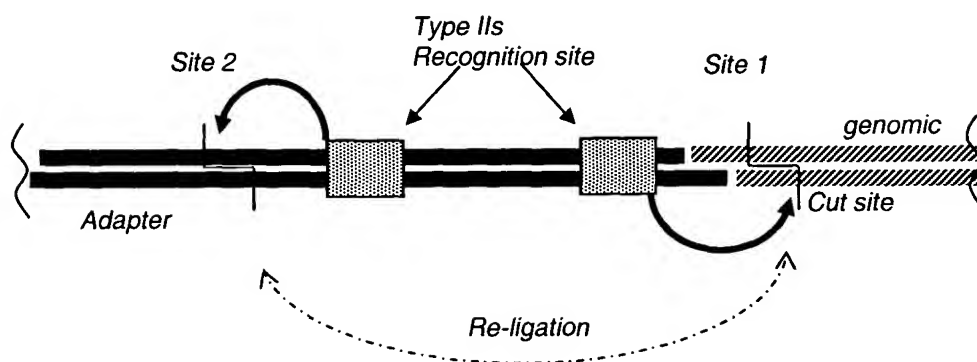
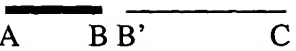
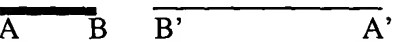


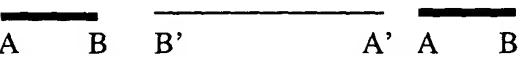
Figure 6

A B B' C


Most frequent event: Adaptor binds one end, no circle formation

A B B' A'

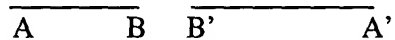
Desired result: Adaptor and fragment ends match, ligate and circularize

A B B' A' A B

Ends match, but different adaptors bind both ends, no circle formation; less frequent because intramolecular ligation after first adaptor attaches is very fast;

A B B' C C' A'

Two fragments ligate and circularize with an adaptor (chance to get one fragment with A' and one with B' overhang to ligate is 1 in 256, and most likely each will be blocked with an adaptor; multiple ligation is also slower)

A B B' A'

Two fragments ligate and circularize: low frequency because out-competed by adaptors. No specific primer-binding site for amplification.

Figure 7

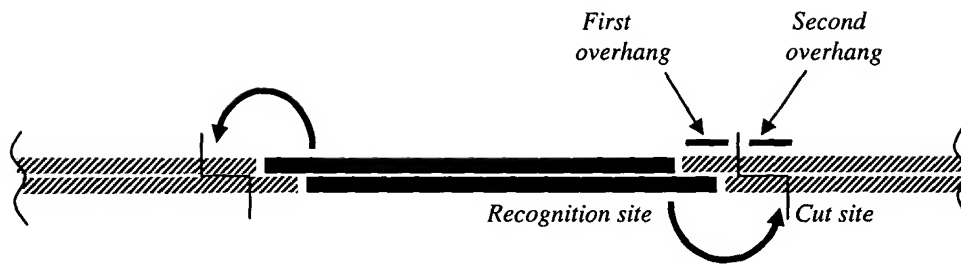


Figure 8



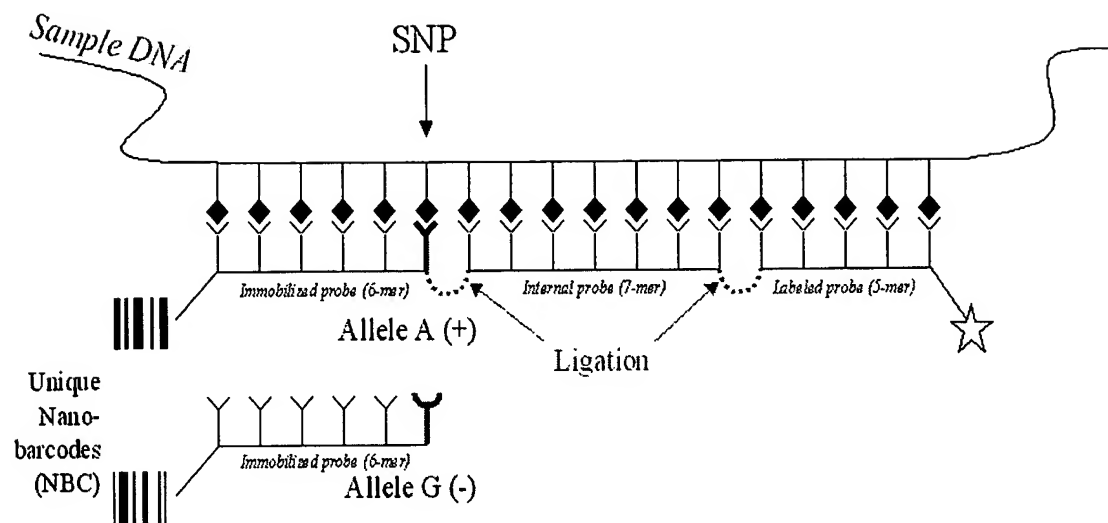


Figure 9

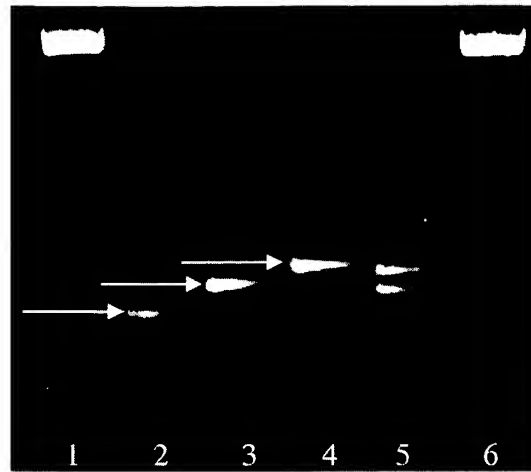


Figure 10A

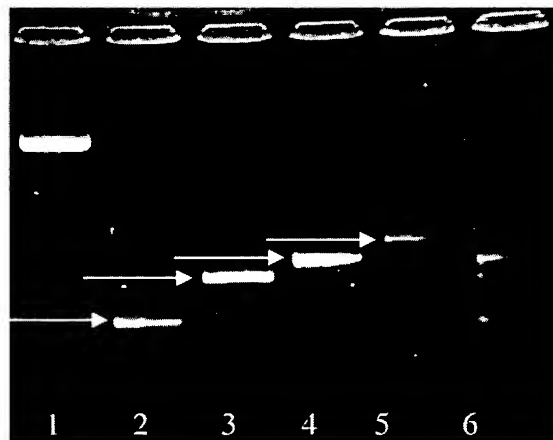


Figure 10B

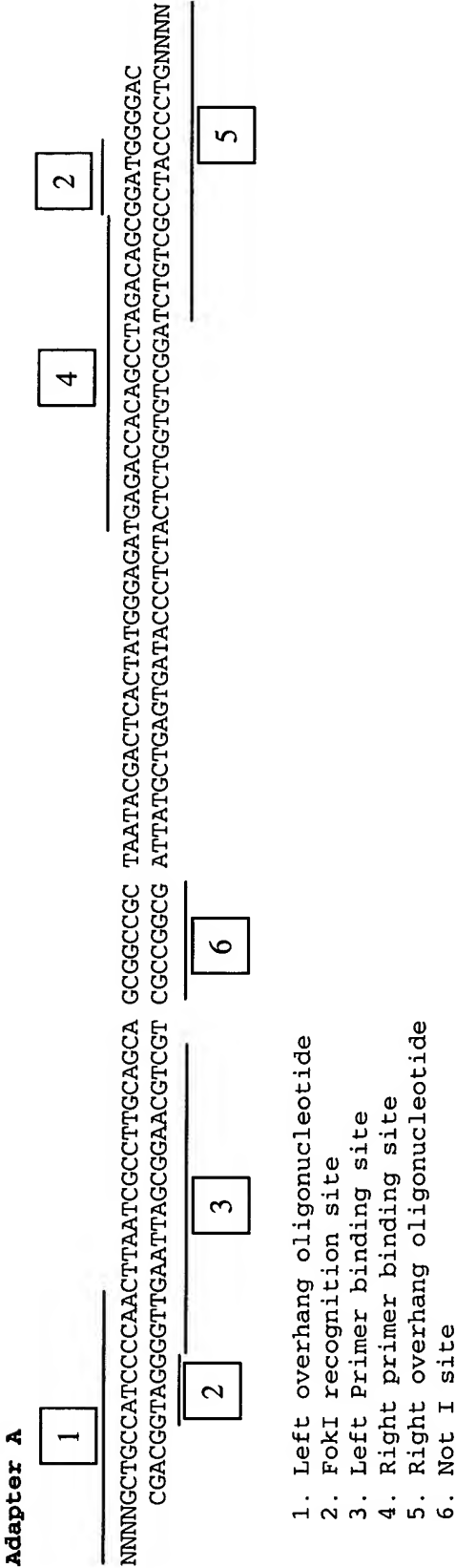


Figure 11